

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 26 JUL 2005

WIPO

PCT

Applicant's or agent's file reference 11627PCT dl:kb	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/AU2004/000368	International filing date (<i>day/month/year</i>) 25 March 2004	Priority date (<i>day/month/year</i>) 25 March 2003	
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ G03B 21/14			
Applicant DIGISLIDE INTERNATIONAL PTY LTD et al			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☐ (sent to the applicant and to the International Bureau) a total of sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or table related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☒ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☒ Box No. VIII Certain observations on the international application

Date of submission of the demand 25 January 2005	Date of completion of the report 18 July 2005
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer IRINA TALANINA Telephone No. (02) 6283 2203

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AU2004/000368

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1 (b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

☒ the international application as originally filed/furnished

☐ the description:

pages	as originally filed/furnished	
pages*	received by this Authority on	with the letter of
pages*	received by this Authority on	with the letter of

☐ the claims:

pages	as originally filed/furnished
pages*	as amended (together with any statement) under Article 19
pages*	received by this Authority on with the letter of
pages*	received by this Authority on with the letter of

☐ the drawings:

pages	as originally filed/furnished
pages*	received by this Authority on with the letter of
pages*	received by this Authority on with the letter of

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to the sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to the sequence listing (*specify*):

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AU2004/000368

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 14	YES
	Claims 1-13	NO
Inventive step (IS)	Claims -	YES
	Claims 1-14	NO
Industrial applicability (IA)	Claims 1-14	YES
	Claims -	NO

2. Citations and explanations (Rule 70.7)

NOVELTY (N) claims 1-13

Claims 1-4, 6-13:

- US 5806952 A (FUJIMORI) 15 September 1998 (D1)

The document D1 discloses a projection display apparatus. The apparatus 1 includes a light source lamp unit 8, an optical lens unit 9 and a projection lens unit 6 which are fastened together to form a single unit (*i.e.* an optical engine) [see col. 2 lines 1-6, col. 2 line 65 - col. 3 line 16, col. 4 line 47 - col. 5 line 46, col. 9 lines 8-15 & figures 2, 3 of D1]. A housing 2 of the apparatus 1 has two cooling vents and two fans 15, 16 [see col. 4 lines 16-18 & figures 2B, 4]. From figure 1B of D1, it appears that the housing 2 has a lid which allows access to the optical engine. The optical engine is elevated from the bottom of the housing 2 [see col. 8 line 60 - col. 9 line 1]. The apparatus 1 also includes various electronic components, such as a control circuit board, a floppy disk reader, *etc.* [see col. 3 lines 61-67]. A power supply unit 7 appears to be a transformer [see col. 7 lines 30-50].

Claims 1-5, 7, 10-13:

- Patent Abstracts of Japan JP 08-068978 A (CASIO COMPUT CO LTD) 12 March 1996 (D2)

This document discloses a liquid crystal projector including an optical system module 10 (an optical engine) with a light source 11, a liquid display module 21 and a projection lens 25 which are shown in figure 3 of D2 as all fixed together (see the abstract, paragraph [0013] & figures 2, 3 of D2). The optical system module 10 appears to be enclosed in a casing 32 (see paragraph [0017] & figures 5-7). The projector also includes a fan 8 and two cooling vents 6, 9, a power source 5 and other electronic components (see figure 2).

Claims 1-6:

- Patent Abstracts of Japan JP 08-114859 A (FUJI PHOTO FILM CO LTD) 7 May 1996 (D3)

This document discloses a liquid crystal projector and its assembling method. A unit member 20 (an optical engine) includes a projection lens 7 as well as other optical components which are all fastened together (see paragraphs [0016]-[0019] & figures 1-3 of D3). The unit member 20 is shown as encased (see plates 2B, 7B, 3A in figure 2) and accessible by opening a covering 1C in the front face of the projector housing 1 (see figure 1).

Claims 1-5, 7, 10:

- Patent Abstracts of Japan JP 11-103435 A (SANYO ELECTRIC CO LTD) 13 April 1999 (D4)

This document discloses a projection display apparatus including an optical engine unit 2 with a projection lens 21 arranged in the upper part of the optical engine unit (see abstract of D4). A fan 11 and two cooling vents are also disclosed (see figure 2).

(continued on Supplemental Sheet)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AU2004/000368

Box No. VI Certain documents cited

1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
E,X US 2004/0080677 A	29 April 2004	16 September 2003	25 October 2002

- US 2004/0080677 A (KAMEI) 29 April 2004

The document US 2004/0080677 discloses an optical engine 10 and a projection display apparatus (see paragraphs [0026]-[0028], [0039], [0040] & figures 1, 2 of the citation). The citation discloses all the essential features of the present claims 1-4, 7, 10-13.

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure

Date of non-written disclosure
(day/month/year)

Date of written disclosure
referring to non-written disclosure
(day/month/year)

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

- (1) Claim 2 is not clear with regard to the phrase "through which a light source is adapted to pass" because it appears that, instead of "a light source", this phrase should refer to a light emitted by a light source.
- (2) Claim 3 is not clear because I cannot find an antecedent to "said light source" when claim 3 is appended to claim 1.
- (3) Claim 10 is not clear because I cannot find an antecedent to "said air flow" when claim 10 is appended to any one of claims 1 to 6. Further, I cannot find an antecedent to "said optical elements" when claim 10 is appended to claim 1.
- (4) Claim 11 is not clear because I cannot find an antecedent to "said body section" when claim 11 is appended to any one of claims 1 to 5.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of Box V:

INVENTIVE STEP (IS) claims 1-14

Claims 1-13: as above

Claim 14: The details of an optical engine enclosure, such as a base member holding an objective lens at its front end, two side walls and an upper clip, *etc.*, represent routine design variation in the art as the components of the optical engine can be fastened together in a variety of ways (using walls, frames, *etc.*) which all result in a predetermined fixed relationship between the components of the optical engine.